



Advanced Building Guidelines

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***Federal Sustainability Working Group
Washington, DC April 23, 2003***

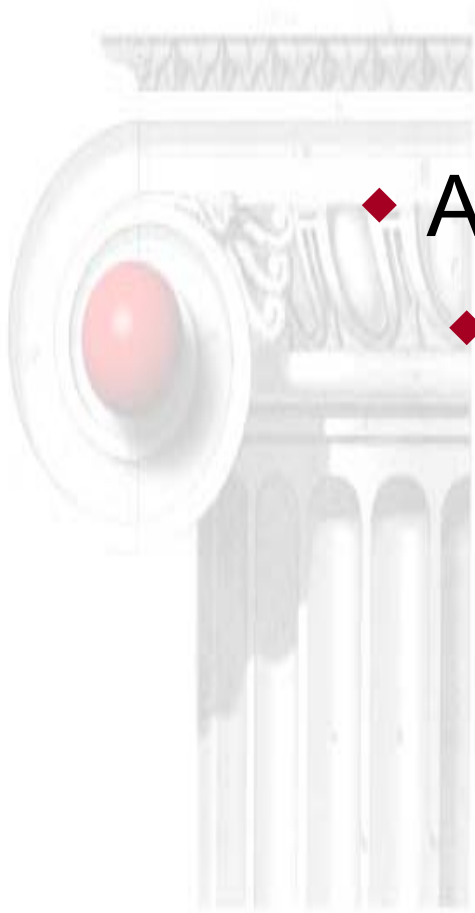
A not-for-profit public benefits corporation helping to
make buildings better for people and the environment

<http://www.newbuildings.org>

Summary



- ◆ New Buildings Institute
- ◆ Advanced Building Guidelines
- ◆ LEED and the Guidelines
 - ◆ Federal context
 - ◆ Q & A



New Buildings Institute



- ◆ Formed in December 1997 as 501(c)3
- ◆ Offices in NW & CA
- ◆ Working with partners in:
 - California
 - Northwest
 - Northeast
 - Midwest
- ◆ Annual revenues of over \$2 million

Setting



2002 Sponsors



- Northwest Energy Efficiency Alliance
- Efficiency Vermont
- Energy Foundation
- Iowa Energy Center
- National Grid, USA
- New York State Energy Research and Development Authority
- Northeast Energy Efficiency Partnerships, Inc.
- California Energy Commission
- Sacramento Municipal Utility District
- Southern California Edison Company
- US Environmental Protection Agency

FY 2003 Project Portfolio



◆ **Building Science Research**

- HVAC, Daylighting and Outdoor Lighting (PIER)
- Lighting Controls (PIER)
- As-Built Performance vs Energy Design Intent (EPA)

◆ **Guidelines**

- Advanced Lighting Guidelines
- Advanced Building Guidelines

◆ **Codes**

- Acceptance Testing (California's Title 24)
- Targeted National, Regional and State Support

◆ **Other**

- WI Brochures on High Performance Buildings
- Leading Edge Architectural Design Competition

Advanced Building Guidelines (Guidelines)



- ◆ **Goal:** define best practice in the design, construction, start-up and operation of new and renovated nonresidential buildings.
- ◆ **Focus:** Energy technologies & practices in Commercial Buildings.
- ◆ **Audience:** utilities, public benefits orgs, market transformation orgs, facilities specifications, and design & construction teams.

Elements:



- ◆ Planning Guide (the “*Why*”)
 - Sector-based marketing information
- ◆ Criteria Guide (the “*What*”)
 - Prescriptive criteria
 - Performance criteria
 - Reference 90.1 ECB w/ Appendix G
 - Process and Documentation
 - Follows Guideline 1 Process (Commissioning)
- ◆ Design Guide (*the “How”*)
- ◆ Delivery Partners (the “*Who*”)
 - Sponsors and others implement

Criteria Guide

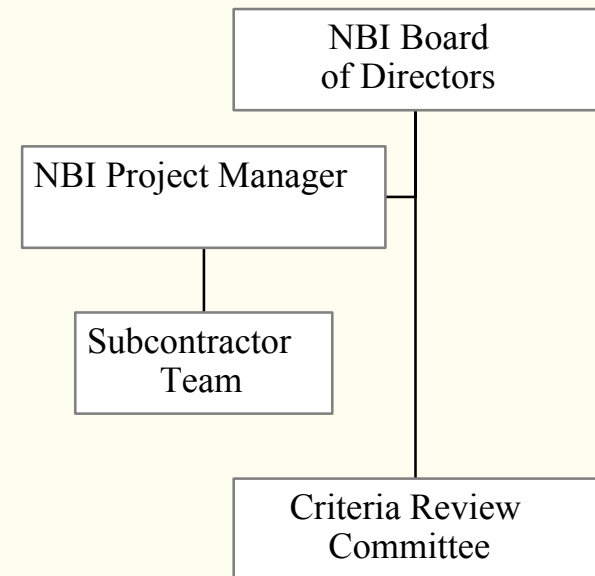


- ◆ Nationally recognized criteria for setting efficiency targets
- ◆ Fit within other programs
 - Commercial new construction
 - LEED/Green Buildings
 - Tax Credits
 - Energy Star
- ◆ **Two levels**
 - First level (10% to 30% above ASHRAE)
 - Second level (50% above ASHRAE)
- ◆ Targeted to improve “actual” performance

Criteria Review Process



- ◆ ANSI Procedure
 - Committee Balance
 - Public Review Process
- ◆ Committee Participation
 - Face-to-face
 - Conference Calls
- ◆ Schedule
 - September 02 Draft
 - Chicago Review (October)
 - February 03 Draft
 - Atlanta Review (March)
 - NBI Board Review
 - Location TBD (April/May)
 - Publish
 - May 2003

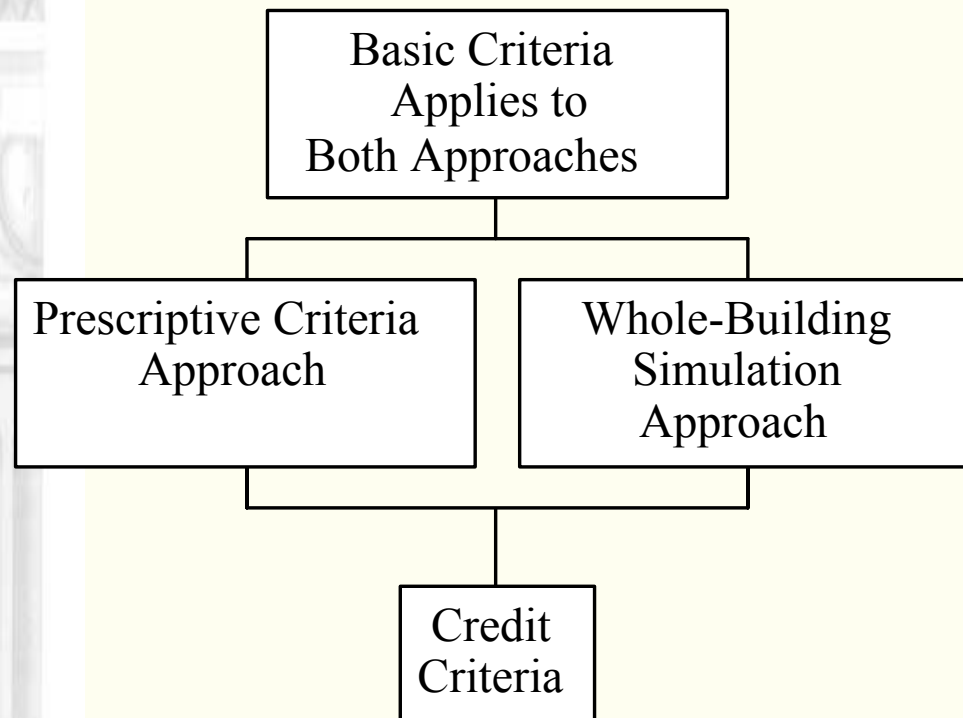


Review Committee



Northeast Energy Efficiency Partnership	Watt Stopper
Ring & DuChateau, Inc.	Owens Corning
Shepley, Bulfinch, Richardson & Abbott	Alliance to Save Energy
Primary Glass Manufacturer's Council	American Council for an Energy Efficient Economy
National Grid USA	U.S. Department of Energy-FEMP
IESNA	Edison Electric Institute
American Gas Association	Trane Co.
PowerLight	Consulting Engineer
Special Projects for Management	CTL Group
NEMA	Marina Mechanical
City of Seattle	Working Buildings, LLC
National Grid USA	B. Alan Whitson Co.

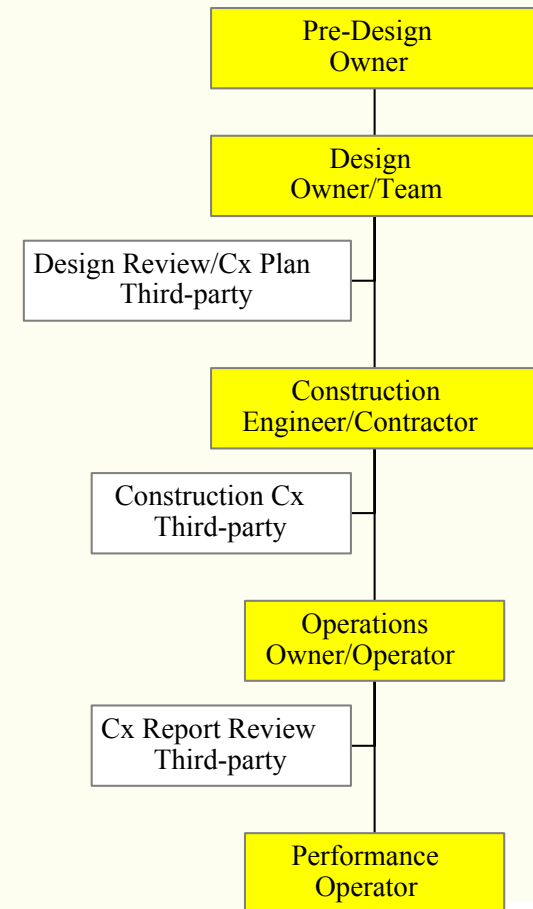
Criteria



Documentation



- ◆ Pre-design Certification
 - Statement of goals and principles
- ◆ Design Certification
 - Final plans/specs
- ◆ Construction Certification
 - Submittal/Cx Report
- ◆ Operations Certification
 - Trend-log/Warranty
- ◆ Performance Certification
 - Measurement and Verification



Sponsor/Carrier Status

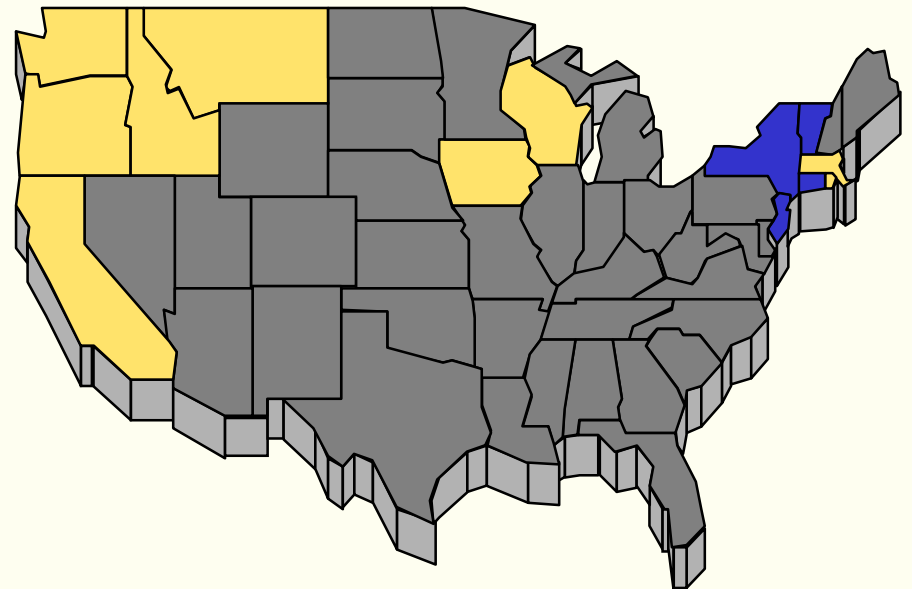


◆ Current Sponsors

- NEEA (NW)
- WI Dept of Admin (WI)
- Iowa Energy Center
- Energy Foundation
- National Grid (MA)
- CA Energy Commission

◆ CY 03 Prospects

- Northeast Utilities (CT)
- NSTAR (Boston)
- Savings by Design (CA)
- Energy Smart (NJ)
- NYSERDA/LIPA (NY)
- Efficiency Vermont
- US EPA



Connections



- ◆ LEED
 - Energy and Atmosphere Points
- ◆ New Construction Programs
 - Next generation program design
- ◆ Public Buildings
 - Advanced specification
- ◆ Tax Credit (In Congress)
 - *How to exceed ASHRAE by 50%*
- ◆ Energy Codes
 - Next generation code levels



Utility and Public
Benefit Programs



Public Buildings



- ◆ Wisconsin DOA application to state buildings
- ◆ Washington state application to school and educational facilities

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NEW
BUILDINGS
INSTITUTE

Benefits to Agencies

- ◆ Lower cost – Greater Value
 - pre-defined path provide economical access for a variety of buildings
 - Matched with utility/public programs
- ◆ Consistent national baseline and program for building performance
- ◆ Educational sessions and materials
- ◆ Meet/exceed most FEMP specs
- ◆ Emphasis on measurable energy savings
- ◆ Based on life-cycle costs and off-the-shelf techniques and technologies

Schedule

- ◆ Criteria Guide, First Edition:
 - Feb. 11th – 2nd Revision
 - March 10th – Review Committee Mtg.
 - March 24th – End of Public Comment
 - May – Board Review & Approval
 - May/June – Publish
- ◆ Planning Guide: 2003
- ◆ Design Guide: 2003
- ◆ Education Modules: 2003-2004
- ◆ Criteria Guide, Second Edition - 2006